

PGI41

SHOULD COST-EFFECTIVENESS ANALYSIS INCLUDE THE COST OF CONSUMPTION ACTIVITIES? AN EMPIRICAL INVESTIGATION

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OBJECTIVES: There has been a debate on whether cost-effectiveness analysis should consider the cost of consumption and leisure time activities when using the quality-adjusted life year as a measure of health outcome under a societal perspective. The purpose of this study was to investigate whether the effects of ill health on consumptive activities are spontaneously considered in a health state valuation exercise and how much this matters. **METHODS:** The survey enrolled patients with inflammatory bowel disease in Germany (n = 104). Patients were randomized to explicit and no explicit instruction for the consideration of consumption and leisure effects in a time trade-off (TTO) exercise. **RESULTS:** Explicit instruction to consider non-health-related utility in TTO exercises did not influence TTO scores. However, spontaneous consideration of non-health-related utility in patients without explicit instruction (60% of respondents) led to significantly lower TTO scores. **CONCLUSIONS:** Results suggest an inclusion of consumption costs in the numerator of the cost-effectiveness ratio, at least for those respondents who spontaneously consider non-health-related utility from treatment. Given the importance of this question for the conduct of cost-effectiveness analysis in health care, confirmation in additional studies that are conducted outside Germany and consider other health-state valuation techniques and diseases is recommended.

PGI42

IMPACT OF IRRITABLE BOWEL SYNDROME WITH CONSTIPATION ON WORK PRODUCTIVITY AND DAILY ACTIVITY AMONG COMMERCIAL INSURED PATIENTS IN THE UNITED STATES

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OBJECTIVES: To assess work productivity and daily activity impairment among irritable bowel syndrome with constipation (IBS-C) patients in the United States. **METHODS:** IBS-C patients aged ≥18 years with continuous medical and pharmacy benefit eligibility (03/01/2011–02/28/2013) were identified from claims in the HealthCore Integrated Research Database and invited to complete a cross-sectional patient survey. Survey questions based on modified Rome III criteria confirmed IBS-C claims-based diagnoses. Patients who met both claims-based and Rome criteria completed the full survey, including the Work Productivity and Activity Impairment Questionnaire: General Health (WPAI: GH), which assessed the impact of general health problems on patients' ability to work and function. WPAI: GH scores for absenteeism (work hours missed), presenteeism (lost productivity at work), and overall work productivity loss (absenteeism + presenteeism) over the previous week were calculated for employed respondents; daily activity impairment (functional impairment) was computed for all respondents. Follow-up questions adapted from the WPAI: GH evaluated work and activity impairment due to IBS-C. Scores are expressed as percentages, with higher percentages indicating greater impairment and less productivity. Indirect costs were calculated based on overall work productivity loss due to IBS-C using the human capital method. **RESULTS:** Of 53 respondents (mean age: 40±15 years; 84.9% female), 35 were employed. Absenteeism averaged 10.6%, presenteeism averaged 37.4%, overall work productivity loss averaged 39.3%, and daily activity impairment averaged 45.7% due to general health problems over the past week. Of this, 7.5%, 21.5%, 23.8%, and 14.2% was attributed to IBS-C, respectively. The economic cost due to lost productivity attributable to IBS-C was estimated at \$155±\$321 USD per employed patient/week. **CONCLUSIONS:** IBS-C-related impairment at work and in daily activities represents a significant burden for patients and employers. Treatments that effectively manage IBS-C symptoms may represent cost savings in the form of avoided work productivity losses associated with IBS-C.

GASTROINTESTINAL DISORDERS – Health Care Use & Policy Studies

PGI43

UTILIZATION OF TOTAL PARENTERAL NUTRITION IN A SOUTH INDIAN TERTIARY CARE HOSPITAL

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OBJECTIVES: Total Parenteral Nutrition (TPN) is an essential pharmaceutical preparation used in hospitalized patients to whom enteral feeding is not possible or for critical care patients with compromised gastrointestinal tract function. Use of TPN reduce the incidence of malnutrition, which is a leading complication associated with various medical and surgical conditions. Hence the purpose of the study is to assess TPN utilization in surgical in-patients and its outcomes. **METHODS:** Retrospective analysis of surgical in-patients receiving TPN from Jan 2011 to Dec 2012 in a tertiary care hospital was carried out. Patients who were administered TPN were included in the study. Patient characteristics and treatment details were collected. Data were analyzed using SPSS @ version 20.0. **RESULTS:** A total of 120 patients were enrolled in the study. The mean age of patients taking TPN was 48.9±17.7 years. Majority of patients (67.5%) were males. A large proportion (40.8%) of the patients receiving TPN were those who underwent surgical procedures and had intestinal obstruction. Major metabolic complication included hypernatremia (26.5%) followed by hyperglycemia. Higher (79.5%) recovery rate was observed in patients who received TPN peripherally compared to those who received it via a central line. Among the patients receiving TPN, mortality was higher in patients with infections (31.9%) than without infection. In 93.3% of the cases, TPN starts were considered to be appropriate indications and rest inappropriate. From an eco-

nomical standpoint, the total avoidable cost with TPN mounted to 2,48,200 Indian Rupees. **CONCLUSIONS:** Proper use of TPN reduced mortality in post-surgical patients. Greater attention to nutritional assessment to determine caloric need and nutritional requirement for individual patients should further improve benefits, reduce mortality and save treatment costs in hospitalized patients.

PGI44

A HEALTH TECHNOLOGY-RELATED COST DESCRIPTION CONCERNING ITALIAN IBD CENTRES DEALING WITH CROHN'S DISEASE: RESULTS FROM SOLE STUDY

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OBJECTIVES: To investigate the health technology-related costs of Italian inflammatory bowel disease (IBD) centers dealing with Crohn's disease (CD). **METHODS:** Following the hospital standpoint, a questionnaire-supported cost description was performed on a convenience sample of 38 Italian IBD centers participating in the ongoing Survey on Quality Of Life in Crohn's Patients (SOLE). Consistently with their average useful life, a 5-year straight-line depreciation approach was adopted for calculating the yearly cost for each health technology. Cost description was undertaken either considering all centers as an undifferentiated sample, or stratifying them according to their complexity (number of beds for inpatient and day-hospital; personnel dedicated to CD patients; number of cross-border CD patients; availability of dedicated rooms for biological drugs administration; feasibility of electronic patient forms). Costs (€2012) were reported as mean (standard deviation, SD). **RESULTS:** Half of centers (19/38) were public teaching hospitals, whereas 39.5% were regional referral centers for CD (15/38). The study sites were located in Northern (12/38, 31.6%), Central (11/38, 28.9%) and Southern (15/38, 39.5%) Italy, and could be classified as high (32/38, 84.2%), moderate (1/38), mild (3/38), and low (2/38) complexity centers. Endoscopy, capsule endoscopy and ultrasonography were the most widespread health technologies available in 92.1%, 78.9% and 34.2% centers, respectively. Considering the undifferentiated sample, mean yearly cost for health technologies amounts to €23,557.50 (€24,277.90). High complexity centers report the highest mean yearly cost of €25,580.38 (€25,706.92), whereas the lowest mean yearly cost of €5,113 (€0) refers to the unique moderate complexity center. Regardless of site complexity, the cost-driver was endoscopy, which accounts for a percentage of the mean yearly cost that ranges from 36.9% (high complexity) to 97.8% (moderate complexity). **CONCLUSIONS:** SOLE results show that when Italian IBD centers complexity is taken into account, remarkable differences exist about costs for health technologies for managing CD patients.

PGI45

DIAGNOSIS AND MANAGEMENT OF MODERATE-TO-SEVERE IRRITABLE BOWEL SYNDROME WITH CONSTIPATION (IBS-C) IN SPAIN: THE IBIS-C STUDY

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OBJECTIVES: The IBIS-C study assessed the burden of IBS-C in 6 European countries (France, Germany, Italy, Spain, Sweden, and UK). Here we present the diagnosis and management results for the Spanish cohort. **METHODS:** Observational, retrospective-prospective (6 months each) study in patients diagnosed with moderate-to-severe IBS-C in the last five years (Rome-III criteria). Moderate-to-severe IBS-C was defined as an IBS-Symptom Severity Score (IBS-SSS) ≥175. **RESULTS:** 112 patients were included (58% severe, mean age [±SD] 46.8 ± 13.7 years, 86% female). Mean time since diagnosis: 2.3 ± 2.7 years; mean symptom duration: 9.6 ± 9.9 years. Diagnostic procedures were highly variable; the most common were blood tests (71%), colonoscopy (56%) and abdominal ultrasound (54%). At inclusion the most prevalent symptoms were constipation (84%), abdominal pain (80%), abdominal distention (80%) and bloating (59%). Main ongoing comorbidities were dyspepsia (41%), anxiety (38%), depression (21%), headache (25%), or insomnia (25%). 58% of patients had an average of 4.1 ± 2.5 diagnostic tests during follow-up. 85% of patients took pharmacological medication (80% took some pharmacological medication for their IBS-C). The most common prescription drugs were plantago ovata (35%), otilonium bromide (22%), macrogol plus electrolytes (13%) and cinitapride tartrate (10%). Likewise, common drug combinations were laxative monotherapy (21%), laxatives and antispasmodics (14%), and antispasmodic monotherapy (5%). In addition, 30% of patients received complementary therapies. Overall, marginal improvement was noted in symptom severity (IBS-SSS total score) between baseline (315±83) and the 6-month visit (234±98). **CONCLUSIONS:** Moderate-to-severe IBS-C symptoms often remain undiagnosed for many years. With frequent visits to health care professionals IBS-C continues to be a burden despite the availability of therapeutic interventions. Finally, current health care resource utilization is high even though there is a high degree of prescription medication use.

PGI46

REAL WORLD STUDIES USING JAPANESE ADMINISTRATIVE DATABASES: CHRONIC HEPATITIS C TREATMENT PATTERN AND RESOURCE USE

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OBJECTIVES: While discussions on health technology assessment (HTA) in Japan continue, platforms for real-world population-based studies are lacking. We attempt